

AMENDMENTS TO THE SPECIFICATION

IN THE TITLE OF THE INVENTION:

The title of the invention has been amended as follows:

~~ENHANCING PERCEPTUAL PERFORMANCE OF HIGH-FREQUENCY RECONSTRUCTION~~
~~CODING METHODS BY ADAPTIVE FILTERING~~APPARATUS AND METHOD APPLYING
ADAPTIVE SPECTRAL WHITENING IN A HIGH-FREQUENCY RECONSTRUCTION
CODING SYSTEM

IN THE SPECIFICATION:

The paragraph beginning on page 9, line 1, has been amended as follows:

Feeding a maximally decimated filterbank with an input signal consisting of white ~~gaussian~~Gaussian noise will produce subband signals with white spectral density. Feeding an oversampled filterbank with white noise gives subband signals with coloured spectral density. This is due to the effects of the frequency responses of the analysis filters. The LPC predictors in the filterbank channels will track the filter characteristics in the case of noise-like input signals. This is an unwanted feature, and benefits from compensation. A possible solution is pre-filtering of the input signals to the linear predictors. The pre-filtering should be an inverse, or an approximation of the inverse, of the analysis filters, in order to compensate for the frequency

responses of the analysis filters. The whitening filters are fed with the original subband signals, as described above. Fig. 7 illustrates the whitening process of a subband signal. The subband signal corresponding to channel 1 is fed to the pre-filtering block 701, and subsequently to a delay chain where the depth of the same depends on the filter order 702. The delayed signals and their conjugates 703 are fed to the linear prediction block 704, where the coefficients are calculated. The coefficients from every L:th calculation are kept by the decimator 705. The subband signals are finally filtered through the filterblock 706, where the predicted coefficients are used and updated for every L:th sample.